

AMENDMENTS TO THE CLAIMS

The claims in this listing replaces all prior versions and listings of claims in the application.

Listing of Claims:

1-18. (Canceled)

19. (New) A radio transmission apparatus, comprising:

an antenna having first and second linear polarization antenna elements perpendicular to each other;

a modulator that modulates transmission data to output a modulated signal; and

a phase controller that controls a phase difference between modulated signals transmitted individually from said first and second linear polarization antenna elements to be one of 0 degrees and 180 degrees according to a value of said transmission data.

20. (New) The radio transmission apparatus of claim 19, wherein said first and second linear polarization antenna elements are positioned with longitudinal directions thereof crossing.

21. (New) The radio transmission apparatus of claim 19, wherein said first and second linear polarization antenna elements are positioned at a spaced interval on a plane with a longitudinal relationship between said first and second linear polarization elements indicative of twisted positions.

22. (New) The radio transmission apparatus of claim 19, wherein said first and second linear polarization antenna elements are positioned at a spaced interval with a longitudinal relationship between said first and second linear polarization elements indicative of having an angle.

23. (New) The radio transmission apparatus of claim 19, wherein said phase controller comprises a multiplier that multiplies a transmission signal by a reference signal to multiply a signal that inverts a polarity of said transmission signal corresponding to said reference signal.

24. (New) A radio transmission apparatus, comprising:

an antenna having first and second linear polarization antenna elements perpendicular to each other;

a modulator that modulates transmission data and outputs a modulated signal;

a spreader that spreads said modulated signal and outputs a spread signal; and

a phase controller that controls a phase difference between spread signals transmitted individually from said first and second linear polarization antenna elements to be one of 0 degrees and 180 degrees according to a value of a spreading code, said spreading code using a spreading process.

25. (New) The radio transmission apparatus of claim 24, wherein said first and second linear polarization antenna elements are positioned with longitudinal directions thereof crossing.

26. (New) The radio transmission apparatus of claim 24, wherein said first and second linear polarization antenna elements are positioned at a spaced interval on a plane with a longitudinal relationship between the first and second linear polarization elements indicative of twisted positions.

27. (New) The radio transmission apparatus of claim 24, wherein said first and second linear polarization antenna elements are positioned at a spaced interval with a longitudinal relationship between said first and second linear polarization elements indicative of having an angle.

28. (New) The radio transmission apparatus of claim 24, wherein said phase controller comprises a multiplier that multiplies a transmission signal by a reference signal to multiply a signal that inverts a polarity of said transmission signal corresponding to said reference signal.

29. (New) A radio transmission apparatus, comprising:

an antenna having a first antenna element that performs a transmission in a predetermined polarization plane and a second antenna element that performs a transmission in a polarization plane perpendicular to said predetermined polarization plane;

a modulator that modulates transmission data and outputs a modulated signal; and

a switch that sets a destination of said modulated signal to one of said first antenna element and said second antenna element according to a value of said transmission data.

30. (New) A radio transmission apparatus, comprising:

an antenna having a first antenna element that performs a transmission in a predetermined polarization plane and a second antenna element that performs a transmission in a polarization plane perpendicular to said predetermined polarization plane;

a modulator that modulates transmission data and outputs a modulated signal;

a spreader that spreads said modulated signal and outputs a spread signal; and

a switch that sets a destination of said spread signal to one of said first antenna element and said second antenna element according to a value of a spreading code, said spreading code using a spreading process.

31. (New) A radio transmission apparatus, comprising:

an antenna that performs a transmission in a predetermined polarization plane and a polarization plane perpendicular to said predetermined polarization plane, and switches the polarizations according to a value of transmission data; and

a modulator that modulates said transmission data and outputs a modulated signal to said antenna.

32. (New) A radio transmission apparatus, comprising:

an antenna that performs a transmission in a predetermined polarization plane and a polarization plane perpendicular to said predetermined polarization plane, and switches the polarizations according to a value of a spreading code, said spreading code using a spreading process;

a modulator that modulates said transmission data and outputs a modulated signal; and

a spreader that spreads said modulated signal and outputs a spread signal to said antenna.

33. (New) A radio reception apparatus, comprising:

a receiver that receives a first signal transmitted in a predetermined polarization plane and a second signal transmitted in a different polarization plane from said predetermined polarization plane;

an electric field strength detector that detects a received electric field strength of said first signal and said second signal; and

a determiner that performs a data determination by associating a magnitude of said received electric field strength of said first signal transmitted in said predetermined polarization plane and said received electric field strength of said second signal transmitted in said different polarization plane with data.

34. (New) The radio reception apparatus of claim 33, wherein said determiner performs said data determination on an as-is basis at a time of a first electric field strength, while with respect to data at a time of a second electric field strength, weaker than said first electric field strength, said data at the time of said first electric field strength is inverted to make said determination.

35. (New) The radio reception apparatus of claim 33, wherein said determiner comprises a D-flip flop that receives as its input data to be corrected and as its gate input a delayed judged result, and an X-NOR gate that receives as its inputs an output of said D-flip flop and said judged result.